Post Construction Water Quality Control

Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas significantly affects receiving waterbodies. There are two forms of substantial impacts of post-construction runoff. The first is an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients. These pollutants become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants enter the food chain through small aquatic life, eventually entering the tissues of fish and humans.

The second kind of post construction runoff impact is increasing the quantity of water delivered to the waterbody during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The affects of this process include streambank scouring and downstream flooding, which often lead to a loss of aquatic life and damage to property.

Non-Structural Low Impact Development Controls

Vegetated Conveyances
Stream Buffers
Disconnected Rooftop Drainage to Pervious Areas
Cluster Development
Grass Paving or Alternative Paving Surfaces
Natural Infiltration

Structural Controls

Wet Ponds
Dry Ponds
Storm Water Wetlands
Bioretention Areas
Sand Filters
Infiltration Trench
Enhanced Grassed Swales
Pre-Fabricated Control Devices
Vegetated Filter Strips (VFS)
Porous Pavement

Innovative Technologies